

# Getting started with Django

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# Outline

- 1 Django Overview
- 2 Installing django
- 3 Creating a new project
- 4 Creating a new application
- 5 Working with models
- 6 Working with templates
- 7 Views and URLConfs



- Web Framework



# About Django

- Web Framework
- MVC (MVT)



# About Django

- Web Framework
- MVC (MVT)
- **ORM**



# About Django

- Web Framework
- MVC (MVT)
- ORM
- **Admin interface**



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- Web Framework
- MVC (MVT)
- ORM
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- **Template system**



# About Django

- Web Framework
- MVC (MVT)
- ORM
- Admin interface
- Template system
- **Cache system**





# About Django

- Web Framework
- MVC (MVT)
- ORM
- Admin interface
- Template system
- Cache system
- **Internationalization**



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## Getting Django

### Install

```
Fedora yum install django
```



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## Starting a project

New Project

```
django-admin startproject blog
```

- `blog/`



## Starting a project

### New Project

```
django-admin startproject blog
```

- blog/

```
__init__.py
```



## Starting a project

### New Project

django-admin startproject blog

- blog/
  - \_\_init\_\_.py
  - manage.py



## Starting a project

### New Project

django-admin startproject blog

- blog/
  - \_\_init\_\_.py
  - manage.py
  - settings.py





## Starting a project

### New Project

django-admin startproject blog

- blog/
  - \_\_init\_\_.py
  - manage.py
  - settings.py
  - urls.py



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## Creating an application

New app

django-admin startapp posts

- posts/



## Creating an application

New app

django-admin startapp posts

- posts/

    \_\_init\_\_.py



## Creating an application

New app

django-admin startapp posts

- posts/
  - \_\_init\_\_.py
  - models.py



## Creating an application

New app

django-admin startapp posts

- posts/
  - \_\_init\_\_.py
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## Creating an application

### New app

django-admin startapp posts

- posts/
  - \_\_init\_\_.py
  - models.py
  - views.py
  - tests.py



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# First model

posts/models.py

```
from django.db import models

class Post(models.Model):
    """
        Model that holds blog posts
    """
    title = models.CharField(max_length=200)
    body = models.TextField()
    posted_date = models.DateTimeField(
        default=datetime.now, blank=True)
```

## Configure the database

settings.py

```
DATABASES = {  
    'default': {  
        'ENGINE': 'django.db.backends.sqlite3',  
        'NAME': 'blog.sqlite3',  
        'USER': '',  
        'PASSWORD': '',  
        'HOST': '',  
        'PORT': '',  
    }  
}
```

Add the app to INSTALLED\_APPS section

settings.py

```
INSTALLED_APPS = (  
    'django.contrib.auth',  
    'django.contrib.contenttypes',  
    'django.contrib.sessions',  
    'django.contrib.sites',  
    'django.contrib.messages',  
    # User defined app  
    'blog.posts',  
)
```

# Previewing the SQL

Command

```
python manage.py sqlall posts
```



# Previewing the SQL

## Command

```
python manage.py sqlall posts
```

## Generated SQL

```
BEGIN;  
CREATE TABLE "posts_post" (  
  "id" integer NOT NULL PRIMARY KEY,  
  "title" varchar(200) NOT NULL,  
  "body" varchar(1000) NOT NULL,  
  "posted_date" datetime NOT NULL,  
)  
;  
COMMIT;
```

```
syncdb
```

```
python manage.py syncdb
```



# Populating the tables

```
syncdb
```

```
python manage.py syncdb
```

```
Creating table posts_post
```

```
No fixtures found.
```



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# Base Template

## templates/base.html

```
<!DOCTYPE html>
<html xmlns="http://www.w3.org/1999/xhtml">
<head>

    {% block title %}
    {% endblock %}

</head>
<body>

    {% block content %}
    {% endblock %}

</body>
</html>
```

# Extending base template

## templates/home.html

```
{% extends 'base.html' %}
{% block title %}
<title> Blog - A simple personal blog </title>
{% endblock %}
{% block content %}

{% for post in posts %}
<h2><a href=post/{{ post.id }}>{{ post.title }}</a></h2>
<p>{{ post.body }} </p>
<hr/>
{% endfor %}

{% endblock %}
```

# Adding template directory to settings.py

settings.py

```
try:  
    ROOT_DIR  
except NameError:  
    ROOT_DIR = os.path.dirname(__file__)
```

settings.py

```
TEMPLATE_DIRS = (  
    os.path.join(ROOT_DIR, 'templates'),  
)
```



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# Writing your first view

posts/views.py

```
def home(request):  
    if request.method == 'GET':  
        posts = Post.objects.all()  
        return direct_to_template(request, 'home.html',  
                                  {'posts': posts})
```



# Mapping URL to views

urls.py

```
from django.conf.urls.defaults import *  
  
urlpatterns = patterns('blog.posts',  
    (r'^$', 'views.home'),)
```



# Testing the website

```
manage.py
```

```
python manage.py runserver
```



# Testing the website

```
manage.py
```

```
python manage.py runserver
```

```
0 errors found
```

```
Django version 1.2.5, using settings 'blog.settings'  
Development server is running at http://127.0.0.1:8000/  
Quit the server with CONTROL-C
```





# Questions?



- The official website <http://djangoproject.com/>
- Django book <http://djangobook.com/>
- Created using beamer <http://latex-beamer.sourceforge.net/>
- Source: <https://gitorious.org/~sagarun>
- Licensed under GNU Free documentation license



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